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EXAMINER

STEVENS, ROBERT

ART UNIT	PAPER NUMBER
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2176

DATE MAILED: 02/24/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/797,057

Applicant(s)

CHUNG ET AL.

Examiner

Robert M. Stevens

Art Unit

2176

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 21 November 2005.  
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-20 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 1-20 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.  
10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 11/21/05  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_  
5) ☐ Notice of Informal Patent Application (PTO-152)  
6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

1. This action is responsive to communications: Amendment filed Nov. 21, 2005.
2. Claims 1-20 are pending. Claims 1, 8, 11-12 and 16 are independent.
3. The previous rejections under 35 USC 101 have been withdrawn in light of the amendment.
4. The previous rejections under 35 USC 112-2<sup>nd</sup> paragraph have been withdrawn in light of the amendment.
5. The previous rejections under 35 USC 102(e) have been withdrawn in light of the amendment.
6. The previous rejections under 35 USC 103(a) have been withdrawn/maintained in light of the amendment.
7. The Office acknowledges the Information Disclosure Statement filed 11/21/2005.

***Claim Rejections - 35 USC § 102***

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

9. **Claims 1-4, 11-13, 15-17 and 19-20 are rejected under 35 U.S.C. 102(e) as being anticipated by Lamkin et al (US Patent Application Publication No. 2002/0078144, filed Aug. 21, 2001 and published Jun. 20, 2002, hereafter referred to as “Lamkin”).**

**Amended independent claim 1 recites:**

*A method of reproducing audio and/or video (AV) data in an interactive mode using a markup document, the method comprising:*

*obtaining the markup document and markup resources representing AV data files that are linked and embedded into the markup document, from an information storage medium; and*

*enabling a user to interact with the markup document for presentation, via a presentation engine operable in a reproduction state, a pause state, and a stop state,*

*wherein the markup document is presented on a screen and selected markup resources representing AV data files are provided in a display window defined by the markup document on the screen according to a document life cycle, if the reproduction state is selected by the user, via a remote controller, and*

*wherein the presentation of the selected markup resources representing AV data files is paused or stopped, if the pause state or the stop state is selected by the user, via the remote controller.*

Lamkin discloses in [0237] that it is well-known in the art to ship DVD information storage media having a markup language document that references AV data files (in the form of an HTML page for starting a video). Lamkin further discloses in [0257] the interaction commands used by the markup document when a user interacts via remote control shown in Fig. 7 #730. Note the data path in Fig. 7 from remote control #730 through Navigator state module #714 to markup language document #740. Furthermore, the API interaction commands are taught for playback (i.e., reproduction) of the DVD in Table A.1.1 of page 13, for pause in Table A.1.18 on pages 21-22, and stop in Table A.1.19 of page 22. Lamkin discloses in [0074] the presentation in a window of AV data that was embedded within an HTML encoded page. It is inherent that this would be performed in accordance with a document life cycle, which is defined in the instant Application at [0020] as: 1) reading the markup document into memory; 2) interpreting the markup document and presenting on a screen; 3) facilitating interaction between the markup document and a user; 4) terminating the document; and 5) discarding the document from memory. It is inherent that a markup language document is loaded into memory, interpreted and then presented on a screen for viewing, and then memory is cleaned up (i.e., data is discarded) after document termination. The user-document interaction passages in Lamkin, including the selection of pause/stop via remote control, have been previously set forth.

**Regarding dependent claims 2-4:** Reading the markup document into memory, interpreting the markup document and presenting on a screen, terminating the document and discarding the document from memory have been described above as processes inherent in the processing of markup language documents in general. The facilitating of interaction between the

markup document and a user was set forth above describing the Lamkin disclosure at [0257], Fig. 7 and Tables A.1.1, A.1.18 and A.1.19.

**Amended independent claim 11 recites:**

*A method of reproducing audio and/or visual (AV) data in an interactive mode using a markup document, the method comprising:*  
*interpreting the markup document comprising AV data embedded therein, obtained from an information storage medium, upon request from a user; and*  
*presenting the markup document comprising the AV data embedded therein on a screen; and*  
*facilitating an interaction between the markup document and the user, thereby allowing the user to pause and/or stop the presentation of the markup document and the AV data on the screen, via a remote controller, during the interactive mode.*

Lamkin discloses in [0237] that it is well-known in the art to ship DVD information storage media having a markup language document that references AV data files (in the form of an HTML page for starting a video). Lamkin further discloses in [0257] the interaction commands used by the markup document when a user interacts via remote control shown in Fig. 7 #730. Note the data path in Fig. 7 from remote control #730 through Navigator state module #714 to markup language document #740. Furthermore, the API interaction commands are taught for playback (i.e., reproduction) of the DVD in Table A.1.1 of page 13, for pause in Table A.1.18 on pages 21-22, and stop in Table A.1.19 of page 22. Lamkin discloses in [0074] the presentation in a window of AV data that was embedded within an HTML encoded page

**Regarding dependent claims 12 and 13:** These claims each recite a computer readable medium comprising instructions for performing the methods of claims 1 and 2, respectively. As such, these claims are substantially similar to claims 1 and 2, and therefore likewise rejected.

**Regarding dependent claim 15:** This claim recites a computer readable medium comprising instructions for performing the method of claim 11. As such, this claim is substantially similar to claim 11, and therefore likewise rejected.

**Newly presented independent claim 16 recites:**

*A method of reproducing data recorded on an information storage medium using a reproduction apparatus comprising:*  
*reading data recorded on the information storage medium in an interactive mode,*  
*including a markup document and markup resources representing audio/visual (AV) data that are linked and embedded into the markup document; and*  
*presenting the markup document according to a document life cycle on a screen in which selected markup resources representing AV data are provided in a display window defined by the markup document,*  
*wherein, upon a user's request via a remote controller, the presentation of the markup resources representing AV data provided in the display window defined by the markup document on the screen can be paused or stopped to resume at a later time.*

Lamkin discloses in [0237] that it is well-known in the art to ship DVD information storage media having a markup language document that references AV data files (in the form of an HTML page for starting a video). Lamkin further discloses in [0257] the interaction commands used by the markup document when a user interacts via remote control shown in Fig. 7 #730. Note the data path in Fig. 7 from remote control #730 through Navigator state module

#714 to markup language document #740. Furthermore, the API interaction commands are taught for playback (i.e., reproduction) of the DVD in Table A.1.1 of page 13, for pause in Table A.1.18 on pages 21-22, and stop in Table A.1.19 of page 22. Lamkin discloses in [0074] the presentation in a window of AV data that was embedded within an HTML encoded page. It is inherent that this would be performed in accordance with a document life cycle, which is defined in the instant Application at [0020] as: 1) reading the markup document into memory; 2) interpreting the markup document and presenting on a screen; 3) facilitating interaction between the markup document and a user; 4) terminating the document; and 5) discarding the document from memory. It is inherent that a markup language document is loaded into memory, interpreted and then presented on a screen for viewing, and then memory is cleaned up after document termination. The user-document interaction passages in Lamkin, including the selection of pause/stop via remote control, have been previously set forth. Lamkin also teaches in Table A.1.18 on pages 21-22 the resumption of paused AV data by toggling a pause function.

**Regarding dependent claim 17:** Lamkin discloses in [0134] and in the Fig. 7 system the use of a markup language document, including the well-known use of Javascript, and interactive DVD storage medium.

**Regarding dependent claim 19:** It is inherent that memory is cleaned up (i.e., data is discarded) after document termination.



**Regarding dependent claim 20:** Lamkin discloses in Table A.1.18 on pages 21-22 resumed playback when a user toggles a pause function.

***Claim Rejections - 35 USC § 103***

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. **Claims 5-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lamkin et al (US Patent Application Publication No. 2002/0078144, filed Aug. 21, 2001 and published Jun. 20, 2002, hereafter referred to as “Lamkin”).**

**Regarding dependent claim 5,** Lamkin discloses in Table A.1.18 on pages 21-22 the toggling of a pause button to pause/unpause. It would have been a well-known and obvious variant to have selected a play (i.e., reproduction) button to start playing AV data from any state. It would have been obvious to one of ordinary skill in the art at the time of the invention to select a play button to restart playing AV data from a paused state because it would have provided the intended functionality of a “play” button (i.e., to play the AV data).

**Regarding dependent claim 6**, Lamkin discloses in Table A.2.2 on page 39 an API call for fetching the elapsed time of an AV file. It would have been obvious to one of ordinary skill in the art at the time of the invention, in light of this functionality, to have stopped the elapsed time when the AV file had stopped playing, because it would have enabled a programmer to keep an accurate measure of the elapsed playing time of AV data, such as a CD disk, as taught in Lamkin in the Summary section of Table A.2.1 on page 39.

**Regarding dependent claim 7**, Lamkin discloses in Table A.1.19 on page 22 an API call for stopping an AV file and in Table A.2.2 on page 39 an API call for fetching the elapsed time of an AV file. It would have been well-known and obvious to one of ordinary skill in the art at the time of the invention, in light of this functionality, to have stopped the elapsed time when the AV file had stopped playing and to have saved state variables. This would have enabled a programmer to keep an accurate measure of the elapsed playing time of AV data, such as a CD disk, as taught in Lamkin in the Summary section of Table A.2.1 on page 39.

12. **Claims 8-10, 14 and 18 are rejected under 35 U.S.C. 103(a)** as being unpatentable over Lamkin et al (US Patent Application Publication No. 2002/0078144, provisionally filed Aug. 21, 2000 and published Jun. 20, 2002, hereafter referred to as “Lamkin”) in view of Michael Morrison et al. (XML Unleashed, Sam’s Publishing, Indianapolis, IN, Dec. 1999, pp. 149-153, 156-172, 174-179, 184-202, 206-209, 289-290, 424, 427, 431-443 and 463-467, hereafter referred to as “Morrison”). Note that additional pages have been cited in the Morrison

reference. Those additional pages have been cited on the current Form PTO-892 and are included with this action. Also, the Microsoft Computer Dictionary, 5<sup>th</sup> Edition, Microsoft Press, Redmond, WA, (c) 2002, p. 179, has been referenced here for the definition of “DTD”, and likewise cited/included with this action.

**Independent claim 8 recites:**

*A method of presenting a markup document in an interactive mode, the method comprising:*

- interpreting the markup document and generating a document object tree according to a predetermined rule;*
- interpreting a stylesheet to define a document form of the markup document and generating a style rule/selector list;*
- interpreting a script code that is included in the markup document;*
- applying the style rule/selector list to the document tree to create a document form;*
- generating a formatting structure that corresponds to the document form;*
- rendering the markup document according to the format structure; and*
- decoding markup resources representing AV data linked to the markup document and outputting the markup document rendered along with the markup resources representing AV data for presentation on a screen in which the markup resources representing AV data are provided in a display window defined by the markup document.*

Lamkin discloses in [0074] the playback of AV data embedded in a markup document (e.g., encoded in HTML) into a window. It’s implied that the markup document has defined the window in which it displays the AV data that is embedded in the document. Lamkin in [0077] and [0231] also discloses the use of a stylesheet in accessing AV data. Lamkin further discloses in [0233] the use of XML. Lamkin also discloses in [0127] and Fig. 7 #740 the use of Javascript in conjunction with a markup document.

However, Lamkin does not explicitly disclose the specific markup language operations recited.

Morrison, though, teaches the recited well-known and inherent markup language concepts. Morrison discloses in Fig. 12.1 of page 207 and in the second paragraph under “Revisiting the XML DOM” on page 427, the well-known concept of abstracting markup documents as tree structures using rules such as set forth in a DTD (Document Type Definition). See also the Microsoft Computer Dictionary, 5<sup>th</sup> Edition definition of “DTD” on p. 179 discussing the use a DTD to provide formal definitions (or rules) for use by a markup document parser (such as that shown in Fig. 12.1 of Morrison). Morrison discloses in the first paragraph under “Inside a CSS Style Sheet” on page 157 the application of a set of rules to a markup document and the rendering of a markup language document in accordance with the application of style rules. Fig. 12.1 on page 207 provides an illustration of the well-known concept of generating a format structure, which is passed to a rendering agent, applying style rules provided in a stylesheet, then rendering a document on a display device in accordance with those rules.

It would have been obvious to one of ordinary skill in the art at the time of the invention to apply the teachings of Morrison for the benefit of Lamkin, because to do so would have provided a programmer with the ability to cleanly separate content and presentations of a markup document, as taught by Morrison in the second paragraph under “A CSS Primer” on page 156. These references were all applicable to the same field of endeavor, i.e., markup language programming.

**Regarding dependent claim 9:** Although Lamkin does not explicitly disclose the recited limitation, Morrison in Fig. 15.1 of page 290 discloses the well-known concept of abstracting markup documents as tree structures having a “document” node at the root of the tree. This figure also discloses text, element and comment nodes. The paragraph following Fig. 15.1 discloses that the version node of this figure is also known as a processing node. Additionally, the Listing 15.1 on page 289 shows the XML code corresponding to the document tree of Fig. 15.1. Note that the first line of this listing contains the document type (a version statement, that produces a version or processing node).

It would have been obvious to one of ordinary skill in the art at the time of the invention to apply the teachings of Morrison for the benefit of Lamkin, because to do so would have provided a programmer with the ability to cleanly separate content and presentations of a markup document, as taught by Morrison in the second paragraph under “A CSS Primer” on page 156. These references were all applicable to the same field of endeavor, i.e., markup language programming.

**Regarding dependent claim 10:** Lamkin discloses in [0078] – [0081] the rendering of a markup document in a window. It is inherent that prior to it’s rendering that the markup document was “preloaded” into memory.

**Regarding dependent claim 14:** This claim recites a computer readable medium comprising instructions for performing the method of claim 8. As such, this claim is substantially similar to claim 8, and therefore likewise rejected.

**Regarding dependent claim 18:**

Lamkin discloses in [0054] the synchronizing of video and in [0233] the support for various AV file types, including MPEG-1 and MPEG-2. “Decoding and Blending” are inherent in the processing of AV data types such as MPEG files. Additionally, Lamkin discloses in [0074] the presentation in a window of AV data that was embedded within an HTML encoded page, it being implicit that the display window was defined by the markup document.

However, Lamkin does not explicitly disclose the specific markup language operations recited.

Morrison discloses in the paragraph below the heading “Why Validate an XML Document?” on page 208 the well-known concept of parser validation of markup documents.

It would have been obvious to one of ordinary skill in the art at the time of the invention to apply the teachings of Morrison for the benefit of Lamkin, because to do so would have provided a programmer with the ability to cleanly separate content and presentations of a markup document, as taught by Morrison in the second paragraph under “A CSS Primer” on page 156. These references were all applicable to the same field of endeavor, i.e., markup language programming.

***Response to Arguments***

13. Applicant's arguments have been fully considered but they are not persuasive. It is noted that Applicant's amendments have changed the scope of the claims.

Regarding the previous rejections of the claims under 35 USC 102(e):

These arguments have been rendered moot, as the rejections were withdrawn, and the art used in those rejections was not re-asserted in this action.

Regarding the previous rejections of the claims using Lamkin '144 (cited in this action as "Lamkin"):

Applicant asserts that the Lamkin '144 reference (cited in the current action as "Lamkin") does not disclose the limitations of the previously used primary reference.

The Office respectfully disagrees with Applicant's assessment of the prior art. Arguments have been presented above in support of the Office's position concerning the Lamkin reference. Lamkin teaches obtaining markup document and AV data from storage. As shown in [0237] of Lamkin, it is well-known in the art to provide DVDs, for example, comprised of markup document and AV data. Lamkin also teaches the well-known use of a remote controller for interacting with a reproduction or playback apparatus in Fig. 7 #730. Lamkin also teaches various operational functions (starting with Table A.1.1) that teach such functionality as playing, pausing and stopping the presentation of AV data.

The Office respectfully notes that Applicant has set forth many limitations that are merely well-known markup language concepts (e.g., tree abstraction of markup language documents). For this reason, a markup language textbook was employed in the rejections.

**Conclusion**

14. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

**Non-patent Literature**

Hjelsvold, Rune, et al., "Web-based Personalization d Management of Interactive Video", WWW 10, Hong Kong, May 1-5, 2001, pp. 129-139 [ACM 1-58113-348-0/01/00005].

LaBarge, Ralph, "WebDVD Products & Techniques, Part 1", DVDMadeEasy.com, © 2001, pp. 1-8.

**US Patent Application Publications**

Cassin et al	2003/0023427
Yassin et al	2003/0120758
Zintel et al	2002/0035621

15. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.



16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert Stevens whose telephone number is (571) 272-4102. The examiner can normally be reached on M-F 6:00 – 2:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Heather R. Herndon can be reached on (571) 272-4136. The current fax phone number for the organization where this application or proceeding is assigned is 703-872-9306. Additionally, the main number for Technology Center 2100 is (571) 272-2100.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/

Robert Stevens  
Art Unit 2176  
Date: February 14, 2006

rms

*William L. Bashore*  
**WILLIAM BASHORE**  
**PRIMARY EXAMINER**  
*2/16/2006*